January Mixed Waste Subgroup Highlights

The Hanford STCG Mixed Waste Subgroup met on January 14, 1999 in the EESB Stampede Room. Larbi Bounini gave a viewgraph presentation about the M-91 TPA milestone work he is involved with at the present time. Many of the MW needs for Hanford are based on meeting the M-91 milestones. There are two sets of interim milestones in M-91. The first set is for dealing with low level MW (LLMW) and the second set is for Transuranic and Transuranic Mixed (TRU/TRUM) waste. Larbi is now working on meeting the LLMW milestone entitled "Submit Project Management Plan" due in June 1999. This covers LLMW on the entire Site. The PMP for the TRU/TRUM waste is not due for another year (June 2000). Larbi reviewed the schedules for both sets of interim milestones and noted that there are privatization clauses in both sets for disposing of the waste. Technology Insertion Points (TIPs) have been identified and called out in our needs but until the PMPs are issued and approved they will not be official. Larbi reviewed some of the uncertainties in the M-91 milestone work including that funding is uncertain in the future. Waste streams and their volumes are also difficult to forecast, especially in the D&D area. TRU waste retrieval is costly and risky especially for the caisson waste. Some CH and small container waste streams have no treatment plans yet (e.g. PCB and Hg waste). The EIS RODs and the M-91 project schedules may be out of sync also.

The rest of Larbi's presentation focused on the LLMW effort and, in particular, the PMP that is due out in June 1999. The thermal treatment of CH-LLMW is to begin in December 2000. An award to a private contractor to treat RH and large-size LLMW is to be made in October 2003. The LLMW PMP will develop the treatment, storage, and disposal (TSD) options for LLMW and greater than category 3 (GTC3) wastes at Hanford. This will include all large containers of CH LLMW and all RH LLMW. The PMP identifies deliverables needed for acquisition of TSD capability including privatization contracts and modifications to any facilities on-site. One of the major objectives of the LLMW PMP is to establish a strategy for LLMW disposition. The PMP will define waste streams and volumes to be treated, as well as cost estimates for TSD. The treatment options will be based on available characterization data and project work plans, schedules, and costs will be developed for each treatment option. The DOE, Washington State Department of Ecology and FDH are all involved in the PMP development as members of the review group. Larbi presented the review schedule for the PMP and noted that the draft will be done by the end of March.

The major assumptions for the LLMW PMP were reviewed by Larbi. One of these assumptions is that the FY98 forecast waste volumes are correct and that DOE EM Integration efforts will not impact the project. There are also a number of project specific assumptions concerning waste from TWRS, CDI, Purex, etc. that Larbi reviewed. Larbi then presented the large-container CH LLMW and RH LLMW feed waste streams, volumes, and required treatment operations from the PMP in flowchart form. From these flowcharts one can see that the majority of the large-container CH waste will be macroencapsulated and consists of inorganic debris waste. The largest

RH waste stream is a forecasted volume of TWRS long-equipment containers. This stream will be macroencapsulated along with debris and low-activity melters from BNFL. All of the waste will end up in the RCRA Subtitle C landfill. Larbi presented a comparison of the 1996 and 1998 forecasts for large-container CH and RH LLMW as well as GTC3 wastes at Hanford. The amount of waste in the forecast dropped dramatically from 159 m^3 to 29.5 m^3 with the biggest drop in the GTC3 and CH waste streams. This serves to point out the problem in forecasting future waste stream volumes. The final viewgraph Larbi presented showed the planned facilities for treating and storing the waste at Hanford. The majority of the waste streams will be macroencapsulated at Hanford.

Norm Olsen distributed copies of the status of efforts to meet the Hanford MW Technology needs. The new need, RL-MW025, entitled "NDA/WIPP Certification of BWAS for CH-TRU Burial Boxes" will be endorsed this month by the STCG Management Council. This need was approved by the subgroup last month and has been added to the DOE-Complex database of needs. The Mixed Waste Focus Area (MWFA) has dedicated $ 200K to this effort for the six month project. The boxed waste assay system (BWAS) is in place at WRAP and is a BNFL Instruments piece of equipment. The funding is to certify its use for WIPP Packages.

Norm then talked about work being done on meeting the need, RL-MW020, entitled "Solidification of High Salt Wastes." The Effluent Treatment Facility has a problem disposing of high salt wastes. The MWFA is providing $ 29K to use a new magnesium phosphate cement called Tectonite and test it. Three surrogate wastes will be sent to the manufacturer and then a Portland firm has been hired to run the various tests including TCLP. Two of the waste surrogates are from the MWFA while one is from Hanford. Norm distributed a product brochure on Tectonite.

A laser decontamination demonstration is being arranged to help meet the MW need, RL-MW04, entitled "Remote Decontamination of RH TRUW Debris to Support Reclassification into Non-TRUW Category". Two samples are being prepared to send to Lasertronics. A laser will be used to remove paint and the demo will be videotaped. This is to be done in late February at Lasertronics in California.

Another demonstration that is about to take place, and would help with the need, RL-MW023, is entitled "Tritium Removal from Wastewater". A vendor, CETI, is ready for a bench top demonstration of its equipment at a Clemson University lab. This will take place this Spring and we may send a sample to be tested from Hanford.

Gary Ballew distributed test results from a LLNL test of direct chemical oxidation (DCO). DCO could be used to help meet the needs, RL-MW05 and RL-MW06, dealing with treating wastes to remove organic contaminants including PCBs. The final report is being written up now and Gary will have the full report available to the subgroup when it arrives.

Norm discussed the new DOE National Management System (NMS) Accelerated Cleanup Path to Closure (ACPC) priority ranking system. This new system will be added to the needs statements being done this year. The system consists of three levels of priority (1,2,3), with 1 being critical to the success of ACPC, 2 for substantial benefits, and 3 providing opportunities for significant cost savings or risk reduction. The new procedures for the Science and Technology Needs Process for this year will be issued in late January. The schedule has been moved up one month this year. The subgroup review will take place in the March-April time frame. Norm is looking at adding needs from a new area on Site, monitoring of radioactive and other releases.

The next MW Subgroup meeting is scheduled for February 11 at 1 P.M. in the EESB Cayuse Room.

Mixed Waste Subgroup Meeting Attendees – 1/14/99

Steve Weakley	PNNL	372-4275
Pamela Innis	EPA	376-4919
Gary Ballew	PRGC	946-0611
Tina Masterson-Heggen	Ecology	736-5701
Bill Bonner	PNNL	372-6263
Norm Olson	FDH-Tech Mgt	372-4810
Shannon Saget	DOE-RL STP	372-4029
Don Engelman	FDH-TM	372-6536
Craig Richins	DOE-STP	372-4020
Wayne Ross	PNNL	372-4684
Larbi Bounini	WMH	376-4650